



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,879	12/11/2006	Roberto Defilippi	33033-1090	3660
45263	7590	05/08/2008		
MITCHELL P. BROOK LUCE, FORWARD, HAMILTON & SCRIPPS LLP 11988 EL CAMINO REAL, SUITE 200 SAN DIEGO, CA 92130			EXAMINER COLEMAN, KEITH A	
			ART UNIT 3747	PAPER NUMBER
			MAIL DATE 05/08/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/572,879

Applicant(s)

DEFILIPPI, ROBERTO

Examiner

KEITH COLEMAN

Art Unit

3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/20/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3747

4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett (US Patent No. 6,216,675) in view of Brummer et al. (US Patent No. 5,445,130) and Watanabe et al. (US Patent No. 5,251,603).

With regards to claim 1, the patent to Bennett discloses a cooling device (28, Col. 3, Line 29, Col. 1, Lines 14-16, See Figure 1) for a fuel-recirculation circuit (Col. 3, Lines 28-32) from the injection system (14, Col. 2, Line 60, See Figure 1) to the tank (18, Col. 3, Line 12, See Figure 1) of a motor vehicle, which has a first opening and a second opening for connection to said recirculation circuit and comprises a pipe (28, See Figure 1) having a side wall (154, Col. 4, Line 28, See Figure 5) and a finned radiant body (32, Col. 3, Line 31) in a relationship of heat exchange with said pipe (28), end couplings (28, See Figure 1) connected hermetically to said pipe (28), an elongated body (28) housed in a through cavity (enclosed by fins 34, Col. 3, Line 32, See Figure 2) defined by said pipe (28), projections (32,34) radially interposed between said pipe (28) and said elongated body (28) to define internal passages traversed by said fuel, in that said projections (32, 34) are integrally formed on at least one of said pipe (28) and said elongated body (28), and in that said end couplings (See Figure 1) are connected to said pipe (28) only except positively disclosing the elongated body is made of polymeric material and is interference fitted in said through cavity. As to the polymeric material, the patent to Brummer et al. discloses an elongated body is made of polymeric material. Since Bennett explicitly states that "other changes may be made in detail, especially in matters of shape, size, arrangement of the parts, order of steps or material of

components within the principles of the invention", it would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute the material of the elongated body of Bennett with a polymeric material in view of the teaching to Brummer et al., in order to have a material that is resistant to fuel and heat. Furthermore, as the interference fit, the patent to Watanabe et al. discloses an elongated body (36) is interference fitted in a cavity (See Figure 6). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the elongated body of Bennett and Brummer with wherein the elongated body (36) is interference fitted in a cavity in view of the teaching to Watanabe, in order to prevent temperature rise of gasoline or fuel in the fuel tank or a motor vehicle (Col. 1, Lines 6-8). See MPEP 2144.07. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious)

With regards to claim 2, the patent to Bennett discloses said radiant body (10) comprises a plurality of fins that are longitudinal with respect to said pipe (See Figure 2).

With regards to claim 3, the patent to Bennett discloses said longitudinal fins are arranged in spoke-like fashion with respect to said pipe (See Figure 2).

With regards to claim 4, the patent to Bennett discloses said elongated body (10) is coaxial to said pipe (24, See Figure 1).

With regards to claim 5, the patent to Bennett discloses said elongated body (10) has at least one tapered end (139, See Figure 3).

With regards to claims 6 and 7, the patent to Bennett discloses said elongated body carries said projections in contact with said side wall of said pipe (24), thus defining said internal passages (See Figure 2).

With regards to claim 8, the patent to Bennett discloses said elongated body (10) has a circular cross section (See Figure 2).

With regards to claim 9, the combination of Bennett, Watanabe et al., and Brummer et al. discloses all the limitations of the claimed subject matter including Watanabe et al. discloses that the projections are helical.

With regards to claim 10 the patent to Bennett discloses characterized in that said projections are longitudinal (See Figures 1 and 2).

With regards to claim 11, the patent to Bennett discloses said at least one coupling comprises a substantially conical portion (138) housing a respective end (See Figures 1 and 2).

Response to Arguments

Applicant's arguments filed 3/20/2008 have been fully considered but they are not persuasive.

Applicant's Arguments

Independent claim 1 relates to a cooling device having an elongated body housed in a through cavity characterized in that said elongated body is made of polymeric material and is interference fitted in said through cavity. Although Bennett may disclose a cooler having a single pipe member 28 made of aluminum and comprising internal and external fins, Bennett does not teach or suggest an elongated body housed in the through cavity. The other cited references fail to make up for this deficiency of Bennett.

Moreover, Watanabe does not teach or suggest a body interference fitted within a pipe. In particular, Watanabe does not disclose that the fins are interference fitted. Absent an indication that the fins are interference fitted, one can infer that tube 17A, to which fins are secured, is locked by end plates 23A. Furthermore, fins 32 and tube 17A

Art Unit: 3747

of Watanabe are a heat transfer means (see e.g. column 4, line 4), so they must be made of material having a suitable heat transfer coefficient. By contrast, the present invention provides an elongated body made of polymeric material which does not have any heat transfer capability. Thus, there is no suggestion and/or motivation in Watanabe to manufacture an elongated body in polymeric material.

Further, Bennett fails to provide a motivation to combine and substitute the material of the elongated body with the polymeric material of Brummer. Bennett does not disclose an elongated body housed within the pipe so there is no suggestion to change the materials used in the fuel cooling device to provide a polymeric elongated body.

Examiner's Response to Arguments

As to Applicant's first argument, "The other cited references fail to make up for this deficiency of Bennett," Watanabe clearly shows in Figures 6-8 of inserting a finned body into housing.

FIG. 6

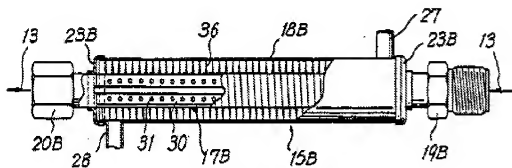
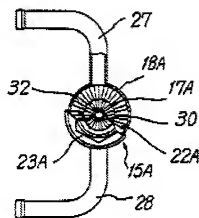
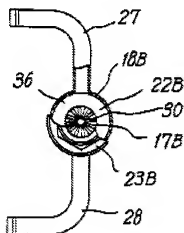


FIG. 7

FIG. 8



In addition, using broadest reasonable interpretation See MPEP 2111, "interference" is clearly defined as "Something that hinders, **obstructs**, or impedes." And it is clearly shown above that the finned body inserted into the housing is acting as an obstructing mechanism.

As to Applicant's second argument, "Moreover, Watanabe does not teach or suggest a body interference fitted within a pipe. In particular, Watanabe does not disclose that the fins are interference fitted." Again, it is clear from the drawings and the definition, that Watanabe clearly shows an interference fit.

As to Applicant's last Argument, "Bennett fails to provide a motivation to combine and substitute the material of the elongated body with the polymeric material of Brummer.", Applicant is reminded to see MPEP 2143.01, "Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so." And it is clear from Brummer and Bennett "the patent to Brummer et al. discloses an elongated body is made of polymeric material. Since Bennett explicitly states that "other changes may be made in detail, especially in matters of shape, size, arrangement of the parts, order of steps or material of components within the principles of the invention" as stated in this action that the claimed subject is obvious over the prior art. In addition, to further support the obvious rejection, Applicant is reminded to See MPEP 2144.07. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA

1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious) Thus, this action is made final.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **KEITH COLEMAN** whose telephone number is (571)270-3516. The examiner can normally be reached on 5:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Cronin can be reached on (571)272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3747

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KAC

/K. C./

Examiner, Art Unit 3747

/Stephen K. Cronin/

Supervisory Patent Examiner, Art Unit 3747